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PN - KR2001025628 A 20010406
 TI - METHOD FOR MANUFACTURING TITANIUM OXIDE BY LOW TEMPERATURE TREATMENT
 PA - LEE JONG KOOK (KR)
 IN - LEE JONG KOOK (KR)
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AN - 2001-528094 [58]
 TI - Method for manufacturing titanium oxide by low temperature treatment
 AB - KR2001025628 NOVELTY - Provided is a method for producing titanium oxide powder by conducting low heat treatment such as treating with boiling water or acid excluding heat treatment at high temperature. The titanium oxide powder has excellent crystallinity at relatively low temperature and high specific surface area. Therefore, it is possible to reduce the re-bonding rate of electron-positive hole which decrease the photo-catalyst activity, and to stimulate the photo-catalyst activity due to its broadened reaction area.
 - DETAILED DESCRIPTION - A method for producing TiO₂ powder having nano-size particle is characteristically including the steps of: reacting amorphous titanium hydroxide precipitate obtained from a reaction between 0.5M of TiOCl₂ solution and 0.5M of ammonia solution with 5M of NaOH aqueous SOLUTION; and performing a boiling water treatment or acid treatment to mixture of gamma-Na₂TiO₃ and anatase phase, using HCl at 60 deg.C, to elute all of the Na elements that are contained in the gamma-Na₂TiO₃ and to form TiO₂ nano-size particles having excellent crystallinity and high specific surface area.
 - (Dwg.1/10)
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